

formed, but in which the external features still were largely unformed. In his fourth stage of prenatal life, *puer*, all of the organs were well formed and the joints freely movable. From this it is evident that this stage occurred relatively late in fetal life.

On the basis of their origin, Galen divided all parts of the body into two classes. One class of organs which was said to arise from sperm was called *partes spermaticae*, and the other class, *partes sanguineae*, because he believed they arose from the blood. This classification of Galen continued in use for several hundred years, and well illustrates the danger of speculation.

Galen wrongly thought that the blood of the mother circulates in the fetus, but recognized and carefully described the foramen ovale and the ductus arteriosus and venosus, the existence of which was forgotten for a long time until they were rediscovered and described by Botalli and Aranzi about the middle of the sixteenth century.

Since Galen dissected many domestic animals, he often transferred the observations made upon them directly to man, thereby misleading many who followed him. This need surprise no one and we are daily doing this very thing when we apply, without qualifications, results obtained from experiments on animals to the human being. Because of his devotion to the dissection of animals, it is surprising that Galen does not seem to have studied incubated eggs or human conceptions, both of which he probably could have obtained easily.

Stanford University.

(To be continued)

UTAH MEDICAL HISTORY: SOME REMINISCENCES*

By BELLE A. GEMMEL, M. D.
San Diego

IT became my pleasant pastime during the past winter while browsing through the family papers to segregate those portions in my father's handwriting which pertain to the early history of the medical profession in Utah.

It is not in my power to do justice to those brave souls whose lives were so intimately bound up with the struggles of a pioneer people, and it is quite beyond the scope of this paper to offer more than to refer to a few of the early leaders in medical practice in Utah.

These comments I shall confine to those men who, from 1857 to 1870, were more or less actively associated with my father, Dr. W. F. Anderson, in the practice of medicine in our State of Utah.

It would be impossible to separate the religious from the secular life of the early pioneers of Utah. One might ask what it is that prompts men to leave pleasant surroundings and family ties to

seek adventure in far fields. This reaching out for the unknown marks the progress of the human race, be it in the physical universe or in the realm of the mind.

Men and women of the Mormon faith braved the wilderness to settle in a new country. The very dangers and vicissitudes they encountered made them strong and united. The tenets of their religion attracted others in foreign lands, and so we find in this intermountain region a diversified colony of human souls, all more or less united by the common tie of self-preservation. A strong religious belief in a latter-day dispensation was an even greater force in holding them together as a people. It was to this community that my father came in 1857 from California.

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Washington Franklin Anderson.—Washington Franklin Anderson was born in Williamsburg, Virginia, January 6, 1823, the son of Leroy Anderson and Hannah Wright Southgate. His father was a teacher of the Greek and Roman classics and of French and English literature. His early boyhood was passed in Mobile, Alabama, without events of unusual interest. He began his medical education at the University of Virginia in 1841, and finished his course at the University of Maryland in 1844. He was a resident student of the Baltimore Almshouse Hospital during 1842-44, where he had very unusual privileges in dissections, postmortem examinations, and studies in pathology. He practiced his profession in Sumpter County, Alabama, and in Mobile, until the outbreak of the Mexican War in 1846, when he joined the Alabama Regiment and served in the ranks as orderly sergeant of his company.

At the expiration of his service he was honorably discharged. He then removed to Yorktown, Virginia, where he practiced medicine until 1849, when he emigrated to California, arriving by way of Idaho and the Humboldt River at the height of the "Gold Rush." He practiced in Yolo County, California, until 1857. In 1854 he was made Worshipful Master of Yolo Lodge No. 81, Yolo, California, then working under a dispensation from the Grand Lodge of California, and in the following year was duly elected Master of the Chartered Lodge, in which capacity he served until his removal to Utah. He was also elected a magistrate in his township, and acted several years as Justice of the Peace. But these contacts did not seem to allay his longing for the law and order of a more civilized community where he could practice his profession among his peers. In June of 1857 he joined a company of Mormon converts and their leaders to return to the East by way of Salt Lake City; and his diary, written while crossing the Nevada desert, reveals a growing interest in the tenets of the Mormon faith, expounded in sermon and in conversation around the camp fire.

Peregrine Sessions was captain of the company. Joining with Hezekiah Thatcher and family across the Sierra, then with the Carson Company

* A paper read at the 1931 annual session of the Utah State Medical Association, Salt Lake City, September 9 to 10, 1931.

(William Jennings, Robert Sharkey, Cherry, Isaac Hunter, and other families), they traveled through Carson Valley, up the Humboldt River, the Raft River, and down the Malad, arriving in Salt Lake City the middle of August 1857.

In the autumn of 1857 he was appointed surgeon of Colonel Thomas Collister's Regiment, Nauvoo Legion. In 1860, during the administration of Governor Alfred Cummings, he was elected a member of the Utah Legislature from Salt Lake City. In 1868 he was appointed division surgeon of the Utah militia on the staff of Major General Robert T. Burton, under the territorial governorship of Charles Durkee. He held the office of quarantine physician for several years, and was chairman of the Board of Examiners of physicians desiring license to practice. In the early seventies he was elected president of the first medical society in Utah, with Dr. J. F. Hamilton as vice-president, Dr. Heber John Richards as secretary, and with Drs. Joseph and Den. Benedict, Allen Fowler, Williamson, Seymour B. Young, Taggart, and George C. Douglas as fellow members.

On his arrival in Salt Lake City in 1857, my father identified his interests with this community. In a conversation with Brigham Young he made it plain to him that he was not a convert to the so-called "divine" part of Mormonism, but that he admired the law and order that prevailed under his leadership. Brigham Young responded by slapping him familiarly on the shoulder, and assured him that his rights as a citizen would be protected as long as he wished to remain in Utah and practice his profession. This understanding between the two men was a decided influence in establishing a sympathetic attitude both toward the church and toward the people of Utah.

His education and naturally sociable disposition attracted to him men of like character. He was thirty-four years old at this time and lived alone in a small house "one door south of Neibauer's match factory," as his professional card states.

Undoubtedly a close supervision was exercised over all newcomers to Utah in those days. Recognizing this, he wrote to Brigham Young asking permission to continue meetings for recreation and mutual improvement; and in a letter from the President dated November 9, 1861 (now in my possession), this permission was granted. His sociability and gayety of spirit endeared him to young and old alike. He encouraged educational pursuits and became a leader among the young men of the community. The young physician just entering the profession always found a warm heart in my father, who had an instinct for guiding and encouraging the newcomer. By nature a teacher, he was quick to recognize ability; on the other hand, he was prompt to condemn ignorance and charlatanism.

About the year 1869 suit was brought against Doctor Anderson for malpractice, in the sum of \$50,000. Major Hempstead was his attorney. The following is a verbatim description of the case:

On the 20th of July, 1867, I received a message to visit Wm. Jenne, of Wanship County, Utah. Found him suffering with a comp. dislocation of the ankle joint with fracture of astragalus, and received the following history of the accident from his friends. The Indians had been committing depredations on the settlements and it was thought best to conciliate them with presents of beef. Young Jenne was called on to ride out to the herd and bring up a steer for the Indians. Jenne rode a wild young horse that bucked and threw him with great force among the rocks, the horse falling on the rider's leg.

Jenne was brought to his residence, not a great distance, by his friends. I saw him about 24 hours after the accident. In surgical parlance, the injury was called a compound comminuted fracture of the ankle joint. The joint was torn asunder, the astragalus, (a short thick bone on which the bones of the leg rest and which forms the lower half of the ankle joint) was broken in half. One-half of the astragalus was hanging to the joint by a portion of the lateral ligament which was entirely ruptured and exposed to the air. There was fracture of the lower end of the fibula, and much contusion and laceration of the muscles and tissue surrounding the joint.

The patient was put under chloroform, the injury thoroughly examined and explained to his friends, who were fully convinced that amputation was necessary. The operation was then performed, and some hours afterwards I left Jenne in good condition and returned home, having given directions to attendants in relation to treatment, until I should see him again. I visited Jenne again on the 26th of July and found everything going favorably with the wound and his general condition good. On the 29th I was informed of his bleeding, but, owing to press of business could not go and sent styptics to stop bleeding. Visited him again on the 31st of July and found the stump sluffing, and mortification extending up above the knee. After consultation with his friends, dispatched a telegram for Drs. Bernhisel and Tait to come out and consult as to amputation at the thigh. Dr. Tait came the same night and after consultation with him I immediately performed amputation at the thigh, Tait assisting. On the next day the patient had rallied somewhat from the shock of the operation, and I returned to the city. Visited Jenne again August 8th, found him doing well and returned to the city. Visited him again August 30th and found there had been a slough at the end of the stump and about three-quarters inch of bone exposed. Saw him October 10th in the city and removed the dead bone, Drs. Bernhisel, Tait, Groves, and H. J. Richards assisting. Visited Jenne daily until October 24th, when the stump had entirely healed.

Argument and Miscellaneous Questions Brought Up in Course of the Trial. . . .

A verdict of "No cause for action" was given by the court.

Two Statements.—The following are copies of two bills rendered in other cases:

Charles Oliphant.....to W. F. Anderson Dr.	
Sept. 23. To reducing dislocation and administering chloroform	\$6.00
To 7 visits thereafter	7.00
	<hr/>
	\$13.00

Br. Littlefield	
1860	To W. F. Anderson M. D. Dr.
To medical advice incl. visit child, etc.	\$2.00

The last seventy-five years marks an epoch in the progress of the medical sciences. In the fifties nothing was known of bacteriology nor of the mode of transmission of contagious diseases. Research in public health was then in its infancy. Bedside observation and postmortem dissections formed the basis of clinical and pathologic study.

Physicians were groping for the newer knowledge of bacteriology and the allied sciences to explain the causes of disease. In my father's armamentarium stood bottles of cinchona sulphate, (McKesson and Robbins), brought to Utah in 1857 by Johnson's Army. Calomel, potassium iodid, the salicylates and bromids, tincture ferri chlorid, and the opiates were the *sine qua non* of medical practice. Cardiac and renal dropsy was reduced by large doses of cream of tartar and jalap, with digitalis to control the heart's action. Close bedside study and the personal handling of remedies gave a skill in therapeutics that may well be envied by the physicians of today. The study of family characteristics and traditions, and day and night attendance at the bedside were all in the day's work.

Cases of harelip, fractures, stone in the bladder were frequently met with. The first ovariectomy done in this region was performed by my father in 1882 under the carbolic acid spray, the best antiseptic precaution known in that day, and the patient made a good recovery. Before that time the abdominal cavity was a sealed region not to be invaded by the surgeon's knife. Rheumatism, with cardiac and renal complications, was prevalent; tuberculosis and malaria were introduced from without, though my father records cases of tuberculosis among the local Indians. Sick Indians were taken care of through the Government agencies, though he often treated cases of rheumatism among these people. He kept an articulated skeleton in the back room of his office, and I well remember the terror it inspired in some of these stolid visitors when, waiting their turn for attention, they caught a glimpse of it and heard the rattling of the bones.

"A Plea for a More Exact System of Clinical Observation and Some Advantages of a Record of the Same" is the subject of a paper presented by him at one of the first meetings of the medical society. In this paper he urges physicians to assemble and present bedside records for mutual study. This period seems to be a turning point in the ranks of the medical profession throughout the United States, in the building up of the science of sanitation, and in elevating our profession to a position of dignity and usefulness. Descartes wrote in the eighteenth century, "If it be possible to perfect mankind, the means of perfecting will be found in the medical sciences."

Just here I would call attention to the debt we owe to the engineering profession in maintaining public health today. There were then no restrictions or regulations governing the supply of water and milk. Drainage from farm and domicile was apt to be into the nearest stream, and outbreaks of typhoid, scarlet fever, and diphtheria in its most virulent form were of annual occurrence and were combated with the best means at hand, but the physician was helpless to prevent occurrences of these diseases.

Two physicians whom my father frequently mentions in these early memoirs were Dr. William France and Dr. John M. Bernhisel. Of the

former (William France) very little is known. He had an impediment in his speech, caused by a cleft palate (or perhaps by an injury to his nose). He was not a robust man. He excelled in surgery. The following obituary is copied from the *Deseret News* of March 21, 1860, page 24:

"*William France, M. D.* Died at his residence in Salt Lake City, Tuesday, March 20th, 1860, at 6 o'clock a. m. . . ."

John M. Bernhisel.—Doctor Bernhisel's career in Utah is well known. However, my father's tribute to him should certainly find a place in the medical history of Utah, as it is founded on a personal acquaintance and preserves in a marked degree his characteristics and his religious tendencies. He was a gentleman of culture and traditionally a Whig in politics.

He was a member of the original board of regents of the University of Deseret, Orson Spencer being first chancellor.

In his fifty-third year he was elected delegate to Congress from the territory of Utah (1851), reelected in 1853 and again in 1855.

In 1852 he selected books for the Territorial Library, \$5000 having been appropriated for this purpose.

Doctor Bernhisel lived on the northwest corner of North Temple Street in a plain two-story house which somehow resembled the uncompromising personality of its owner. I remember several broad sandstone steps which formed the approach to the front door; the iron knocker whose tones reverberated through the empty hall as on one occasion when I was with my father he struck three well-timed strokes on it, and finally the cautious opening of the door by the old doctor himself, peering at us through his spectacles, for he was very near-sighted. He was clad in dressing gown and carpet slippers and had a book in his hand. Evidently we had disturbed him at his reading, but his face lit up in pleasant recognition and he invited us into one of the large, rather bare rooms of his house.

The ethics of the profession were carefully observed in those days and a consultation between my father and Doctor Bernhisel was an occasion of considerable formality. His remark on leaving the sickroom on one occasion was: "Cultivate, my dear madam, as far as possible, a cheerful, happy and contented disposition, and all will be well"; which became a byword in our family when as children we teased each other in case of illness.

The practice of bleeding had been included in the doctor's medical training and he was an ardent supporter of this method of relieving a patient of his ills. On one occasion, when considerable blood had been taken from the arm of a patient, and my father mildly protested against continuing the procedure further, Doctor Bernhisel interposed "Bleed her to death," meaning, of course, "Bleed her until she faints." Such were the methods of some of those "doctors of the old school."

As I remember him, Doctor Bernhisel was rather a formidable person. On ordinary occasions and for professional visits he wore a long frock coat with stock collar and high silk hat, after the fashion of a doctor of the old school, which indeed he was.

He taught his children Latin, and was a stern disciplinarian. . . .

John Milton Bernhisel was born June 23, 1799, at Lloydsville, Perry County, Pennsylvania; was graduated from the University of Pennsylvania April 6, 1827. He moved to Nauvoo in 1842 and died in Salt Lake City on September 28, 1881.

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Medicine, like music, seems to be a family tradition and this history of early pioneer physicians in Utah would be incomplete without mention of the Richards family.

Education and close application to scientific principles are the important factors that rescue the healing art from the hands of charlatans and impostors. The history of the Richards family in Utah is one of brilliant success in the field of medicine; may a more facile pen than mine make the record of their notable achievements in the profession.

Appended below is the obituary of H. J. Richards, which gives the outline of his life and work:

Dr. Heber John Richards.—Born in Manchester, England, October 12, 1840. Parents, Dr. Willard Richards and Jennetta Richards. Father married while on a mission to England. Mother died in Nauvoo when Heber John was four years of age.

In 1848 he came to Utah with his father and the pioneers. His life was one of hardship. When but fourteen years old his father died.

Married Mary Julia Johnson April, 1862. Left for a mission to England April 30, 1863. Away three years, traveling in Europe one summer. Returned in April 1866.

November 10, 1867, left Salt Lake City for New York, being sent by Brigham Young to study surgery and carrying a letter of introduction from President Young to Dr. Lewis A. Sayer. Attended Bellevue Hospital Medical College 1867-68, 1868-69. Left New York in April 1869, arriving home in May. He was associated with, and studied under, Dr. W. F. Anderson until November, then went into the Co-operative Drug Store to study medicine and assist. Returned to New York August 1870, studying there until March 1871.

From the early Church records the following is gleaned:

Willard Richards (the father of Dr. Heber John Richards), sixth son of Joseph and Rhoda, was born in Hopkinton, Middlesex County, Massachusetts, June 24, 1804. He devoted his leisure time to the acquisition of knowledge.

In February 1827 he began lecturing on electricity and other scientific subjects throughout the New England States. For several years he devoted much time to the study of the Healing Art

and delivered many instructive lectures on that subject.

In 1834 he entered the Thompsonian Infirmary in Boston and practiced under the direction and instruction of Dr. Samuel Thompson. In 1835, at the request of Mr. Albert P. Rockwood, he went to Holliston, Mass., and delivered lectures on the Botanic or Thompsonian practice of medicine, which created much excitement there and in the surrounding towns.

He removed to Holliston and practiced with success for one year, during which time he resided with Mr. Rockwood.

4476 Hortensia Street.

CLINICAL NOTES AND CASE REPORTS

CHANCER OF FEMALE MEATUS

WITH TOTAL OCCLUSION AND NEOARSPHENAMIN STOMATITIS

REPORT OF CASE

By HERMAN FEINBERG, M. D.
San Francisco

IN presenting this case report it may be stated that it is very interesting and rare to observe an occlusion of the meatus due to a chancre and producing a retention of urine. The stomatitis following the use of neoarsphenamin is also an unusual complication.

REPORT OF CASE

A. E., a white female, age twenty-five, on June 3 complained of "knots" in both inguinal regions and dysuria. A careful history found the patient also suffering from occipital headaches and general malaise. The patient complained of these symptoms four days previous to her visit to my office.

Chancre of the Meatus.—Pelvic examination failed to reveal a lesion or inflammatory condition of the meatus, labia, fourchette, clitoris, vagina, or cervix, but there was a marked bilateral inguinal adenopathy. Smears were negative for gonorrhea. The Wassermann test (Kolmer and Craig) was negative and so was the urine. It was not possible to determine the etiologic factor producing the inguinal adenopathy, but from the above history the case was diagnosed as lues.

The patient was asked to return in five days for another Wassermann. She left town and returned on June 10 (eight days later) with a typical chancre of the meatus. While out of town the patient had to be catheterized because she had been unable to void for eighteen hours. The doctor she visited had to pass a sound and then a catheter in order to remove the urine. The same procedure had to be instituted by me to relieve her of the retention of urine. Some resistance was encountered in passing a 15-F sound through the central necrotic area of the chancre in order to enter the urethra, and then a glass catheter was inserted.